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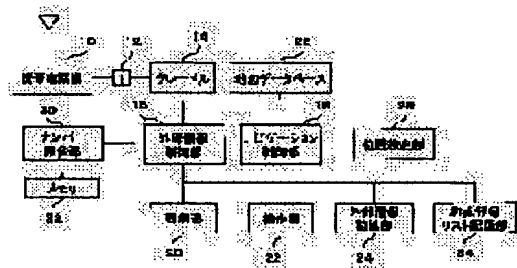
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(54) INFORMATION TERMINAL EQUIPMENT

(57)Abstract:

PROBLEM TO BE SOLVED: To lock efficiently information for each user.

SOLUTION: A portable telephone set 10 connects to a cradle 14 via a connector 12. A number collation section 30 collates a telephone number of the portable telephone set 10 with a telephone number stored in a memory 32. Then the terminal equipment manages access to information stored in an external information storage section 24 and a point registration list storage section 34 in response to a telephone number of the portable telephone set 10.



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CLAIMS

[Claim(s)]

[Claim 1] The connecting means to which the portable telephone which performs telephone communication with the exterior is connected removable, The means of communications which carries out data communication to the portable telephone connected and connected to the portable telephone through this connecting means, The memory which memorizes various information, and an information output means to output the information memorized in this memory, The lock control means which is a preparation ***** terminal unit and controls whether access to the information in memory is permitted, or it considers as disapproval, The information terminal unit characterized by having a means to detect the identification number of the portable telephone connected to said information terminal unit, and the control means of operation which operates said lock control means when said identification number cannot be detected when said identification number is not registered beforehand or.

[Claim 2] The information terminal unit which enables two or more registration of the identification number of a portable telephone, and is characterized by restricting use of the various information in memory according to an individual for every identification number in equipment according to claim 1.

[Claim 3] The data which are memorized by said memory and serve as a candidate for a lock by the lock control means in equipment according to claim 1 or 2 are an information terminal unit characterized by being data which a user can set up in navigation equipment.

[Claim 4] The data which are memorized by said memory and serve as a candidate for a lock by the lock control means in equipment according to claim 3 are an information terminal unit characterized by being a registration point list, or a path and locus data.

[Claim 5] The data which are memorized by said memory and serve as a candidate for a lock by the lock control means in equipment according to claim 3 are an information terminal unit characterized by being data acquired using the portable telephone.

[Claim 6] Becoming said candidate for a lock in equipment according to claim 5 is an information terminal unit characterized by being an electronic mail reception list.

[Claim 7] Becoming said candidate for a lock in equipment according to claim 5 is an information terminal unit characterized by being the online acquisition information acquired from the exterior.

[Claim 8] Becoming said candidate for a lock in equipment according to claim 5 is an information terminal unit characterized by being a telephone number list.

[Claim 9] The information terminal unit which has a location detection means to detect the current position, and is further characterized by controlling the lock by said lock control means in equipment according to claim 1 according to the detected current position.

[Claim 10] The information terminal unit which has a time-of-day detection means to detect current time, and is characterized by controlling the lock by said lock control means in equipment according to claim 1 according to the detected current time.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to lock control of the output of the memory content inside the information terminal unit which can connect a portable telephone, especially an information terminal unit.

[0002]

[Description of the Prior Art] Conventionally the various communication system using a computer has spread, and what transmits and receives an electronic mail (message) or uses on-line information service using information terminals, such as a personal digital assistant and a mounted terminal, is proposed. Especially request of wanting to want the information on the parking lot around the destination, and to want traffic information, and to use on-line information service during transit of a car is high.

[0003] For example, the system by which an operator can acquire the information on desired (various facility information, restaurant information, etc.) is shown in JP,7-105492,A using mounted telephone.

[0004]

[Problem(s) to be Solved by the Invention] Here, one individual uses an information terminal unit by dedication in many cases. A specific individual also uses a car for dedication in many cases that one individual usually uses especially a personal digital assistant for dedication in many cases. Therefore, the information for individuals is also memorized by the information terminal unit in many cases. Please do not know such information for individuals to others in many cases, and it has a request of wanting to apply a security guard. Although starting application is performed in the usual personal computer after completing procedures, such as an input of a user name and a password, it is sensed troublesome in personal digital assistant equipment or a mounted terminal unit in many cases to complete such a procedure.

[0005] Then, a device which can lock the information for individuals on an information terminal unit by the easy approach is desired. This invention is made in view of the above-mentioned technical problem, and aims at offering the information terminal unit which can lock access to information simply and appropriately.

[0006]

[Means for Solving the Problem] The connecting means to which the portable telephone with which this invention performs telephone communication with the exterior is connected removable, The means of communications which carries out data communication to the portable telephone connected and connected to the portable telephone through this connecting means, The memory which memorizes various information, and an information output means to output the information memorized in this memory, The lock control means which is a preparation ***** terminal unit and controls whether access to the information in memory is permitted, or it considers as disapproval, It is characterized by having a means to detect the identification number of the portable telephone connected to said information terminal unit, and the control means of operation which operates said lock control means when said identification number cannot be detected when said identification number is not registered beforehand or.

[0007] Thus, only by connecting a portable telephone, a user is specified and accessible information is determined. Therefore, without performing special actuation, a user only connects a portable telephone and can control the lock of the data within an information terminal. Then, the security about data can be raised by very easy actuation. In addition, as an identification number, the telephone number of a portable telephone etc. is employable.

[0008] Moreover, this invention enables two or more registration of the identification number of a portable telephone, and is characterized by restricting use of the various information in memory according to an individual for every identification number. A user's exception is specified by the exception of a portable telephone. For this reason, individual management of the data to two or more persons' use can be performed.

[0009] Moreover, this invention is memorized by said memory and the data used as the candidate for a lock by the lock control means are characterized by being data which a user can set up in navigation equipment. The secrecy for every user can be held with locking data used in a destination setup etc., such as a registration point.

[0010] Moreover, the data which are memorized by said memory and serve as a candidate for a lock by the lock control means are characterized by being a registration point list, or a path and locus data.

[0011] Moreover, the data which are memorized by said memory and serve as a candidate for a lock by the lock control means are characterized by being data acquired using the portable telephone.

[0012] Moreover, it is characterized by being an electronic mail reception list that this invention serves as said candidate for a lock.

[0013] Moreover, it is characterized by being the online acquisition information acquired from the exterior that this

invention serves as said candidate for a lock.

[0014] Moreover, it is characterized by being a telephone number list that this invention serves as said candidate for a lock.

[0015] Moreover, further, this invention has a location detection means to detect the current position, and is characterized by controlling the lock by said lock control means according to the detected current position. When running the commutation way by such configuration, management of enabling access to specific data etc. can be performed.

[0016] Moreover, this invention has a time-of-day detection means to detect current time, and is characterized by controlling the lock by said lock control means according to the detected current time. According to time of day, the data which can be used are also controllable.

[0017]

[Embodiment of the Invention] Hereafter, the gestalt (henceforth an operation gestalt) of operation of this invention is explained based on a drawing.

[0018] Drawing 1 is the block diagram showing the whole information terminal unit configuration concerning 1 operation gestalt. The portable telephone 10 which performs telephone communication by wireless is connected to the cradle 14 through the connector 12. In addition, this cradle 14 contains the modem which performs strange recovery processing for data communication at least. Moreover, it connects with the antenna and loudspeaker which omitted illustration, the microphone, etc., and a cradle 14 can take over many of functions of a portable telephone 10, and can operate now as a handsfree telephone.

[0019] The external information-control section 16 is connected to the cradle 14. This external information-control section 16 controls acquisition of the information from the external information center (external database) connected through the portable telephone 10, and data communication with a portable telephone 10. Moreover, this external information-control section 16 also performs management of transmission and reception of an electronic mail.

[0020] The navigation control section 18 is connected to this external information-control section 16. This navigation control section 18 performs various processings for path guidance. Moreover, the display 20 and the control unit 22 are connected to the external information-control section 16 and the navigation control section 18. A display 20 consists of liquid crystal displays etc., and performs a map display and the display of various texts. A control unit 22 consists of touch panels prepared in some switches and display 20 front face, and inputs various information by actuation of a user.

[0021] Moreover, the external information storage section 24 is connected to the external information-control section 16 and the navigation control section 18, and this external information storage section 24 memorizes the received on-line service information, and the electronic mail transmitted and received and other various information.

[0022] Moreover, the map database 26 and the location detecting element 28 are connected to the navigation control section 18. The map database 26 memorizes national map data. Moreover, the location detecting element 28 always detects the current position. This location detecting element 28 is constituted from the electric wave from a satellite by the GPS (global positioning system) equipment which detects a location, DGPS (differential and GPS) equipment, etc. Moreover, it is suitable to acquire positional information with a more high precision combining information, autonomous navigation, etc. from a road-side beacon.

[0023] Furthermore, the number collating section 30 which collates the telephone number of a portable telephone is connected to the external information-control section 16, and the memory 32 which memorizes the registration number which should be collated is connected to this number collating section 30.

[0024] Moreover, the point registration list storage section 34 which memorizes the location data of the point used as a destination in navigation etc. is memorized by the navigation control section 18. Furthermore, the transit locus in predetermined transit is memorized.

[0025] It sets to such equipment and the path planning to the destination, the present position indication under transit, a path display, a transit guide, etc. are performed like usual navigation equipment. Moreover, in the setup of the destination, a point registration list is read from the point registration list storage section 34 by actuation of a control unit 22, and it is also possible to set up the destination by selection from a list. Moreover, the transit locus of the self-vehicle memorized by the transit locus memory 36 can be read, and routing can also be performed.

[0026] In transmitting an electronic mail, it chooses the creation screen of an electronic mail by the input from a control unit 22. And a title, the destination, and the text are inputted, transmitting mail is created, and this is transmitted through a cradle 14 and a portable telephone 10. On the other hand, when the electronic mail has been sent, while the external information-control section 16 receives this and memorizes in the external information storage section 24 through a portable telephone 10 and a cradle 14, it displays on a display 20.

[0027] Moreover, in acquiring information from an external database, a control unit 22 is operated and it chooses the screen about on-line information service. And by choosing an external database using, the external database is telephoned with a portable telephone 10, and a circuit is connected. Next, a predetermined reply is received from an external database by transmitting the predetermined retrieval type inputted by the control unit 22. The obtained reply is memorized by the external information storage section 24.

[0028] And with this operation gestalt, a predetermined lock is covered to functions, such as an output of the data to a display 20, with the telephone number of the portable telephone connected to a connector 12. The flow chart of processing when a system is started and a portable telephone 10 is connected to a cradle 14 is explained based on

drawing 2 .

[0029] First, when a portable telephone 10 is connected to a connector 12, the external information-control section 16 communicates with a portable telephone 10, and asks the telephone number of a portable telephone 10 (S11). And the telephone number of a portable telephone 10 to the portable telephone 10 is received (S12).

[0030] Using the number collating section 30, the external information-control section 16 collates the telephone number registered into memory 32, and the received telephone number, and judges whether it is the telephone number with the received registered telephone number (S13). And if it is the registered telephone number, the data which can be used by the system will be selected with the registered data which are memorized by memory 32 for every telephone number (S14). For example, the data which specify the data which can be accessed in the external information storage section 24 or the point registration list storage section 34 as memory 32 are memorized. Therefore, the data which can be read are determined by reading this data. Moreover, the flag for every telephone number registered about each data memorized by the external information storage section 24 and the point registration list storage section 34 stands, and accessible data may be made to be determined for every telephone number.

[0031] Thus, since accessible data are selected, only the data selected according to this cancel a lock, and permit access to data (S15). Therefore, in subsequent actuation, about the data of which the lock was canceled, it becomes possible to read or rewrite this, and various processings using the display to a display 20 or this can be performed.

[0032] On the other hand, in S13, it is NO, and when the telephone number of a portable telephone 10 is not registered, a system is locked (S16). That is, since whose thing it is does not understand the portable telephone 10 connected to the connector 12 and a user cannot be specified, access to access to an external database, the external information storage section 24, or the point registration list storage section 34 is forbidden. The external information-control section 16 or the navigation control section 18 operates as a lock control means.

[0033] Next, a personal identification number is required (S17) and the inputted personal identification number judges whether it is the right (S18). In this judgment of S18, when a right personal identification number is not inputted, processing is ended, with a system locked. In addition, when wait predetermined time when there is no input, or pressing for an input or having mistaken, you may ask for several reinput.

[0034] In the judgment of S18, if it is YES, while registering the telephone number of the connected portable telephone 10 into memory 32, accessible area will be selected (S19). And a system lock is canceled (S20). When the user who knows the right personal identification number connects the new portable telephone 10 to a connector 12, the telephone number of the telephone is registered by this and access to an external database etc. is attained by it. However, access about the data corresponding to other portable telephones 10 is not permitted.

[0035] Thus, the data which can be accessed are managed according to the telephone number of a portable telephone 10. Therefore, an user validation can be automatically performed like the exchange of a personal identification number only by connecting the self portable telephone 10. Since such a check can carry out automatically, without especially a user especially being conscious, a user does not need to perform troublesome actuation.

[0036] In addition, when the new portable telephone 10 is bought, in order to cope with it, it is also suitable to make accessible the data which the registration telephone number was rewritten by the input of the old telephone number etc., and were memorized before with the new portable telephone 10. Such processing can also be used as the system which only a terminal management person can perform.

[0037] The example of data control about an electronic mail reception record book is shown in "example of data control" drawing 3 - drawing 5 . Drawing 3 shows the electronic mail reception record book when a portable telephone A (portable telephone 10) and drawing 4 connect a portable telephone B and drawing 5 connects a portable telephone C. Thus, according to the exception of a portable telephone, the list only of electronic mails addressed to each user is offered. In addition, this electronic mail reception record book is memorized by the external information storage book 24.

[0038] Moreover, it is also suitable that a portable telephone 10 therefore controls independently management of the data in the point registration list storage section 34. When performing setup, correction, and elimination of a memory point, a menu screen as shown in drawing 6 is displayed. And although each activity can be done by choosing this "setup of a memory point", "correction of a memory point", "elimination of a memory point", "a setup, correction, elimination, etc. of a house", etc., these are altogether memorized by the point registration list storage section 34 corresponding to a portable telephone. Therefore, in reading a memory point, read-out only of what is memorized corresponding to the connected portable telephone becomes possible.

[0039] That is, as typically shown in drawing 7 , it responds to the telephone number of the portable telephone 10 connected to a cradle 14, and the list of either of two or more lists is chosen and displayed automatically. Therefore, only the data registered by choosing required information out of this list about the user who possesses that portable telephone become accessible.

[0040] In addition, this invention is applicable not only like the above electronic mails and a registration point but management of an abbreviated number list, a telephone number list, an information retrieval result, the accounting hysteresis in automatic accounting, transit locus memory, a registration path, etc.

[0041] The image which actually carried the migration terminal unit in the car at the "whole equipment configuration" and drawing 8 is shown. Thus, GPS antenna 28a which constitutes a part of location detecting element 28 is prepared above the instrument panel of the vehicle interior of a room, and CD-ROM26a which

constitutes the navigation control section 18 and the map database 26 is prepared in the posterior part trunk. Moreover, a display 20 and the external information-control section 16 are formed in one, and are arranged as wide multistation 60 in the driver seat and the passenger seat at the tooth space of a between. And the cradle 14 which operates the mobile radiotelephone which constitutes a portable telephone 10 as handsfree telephone is connected to this wide multistation 60 through the cable 62.

[0042] That is, in this example, as shown in drawing 9 , a portable telephone 10 is laid in a cradle 14. And a cradle 14 is connected with a portable telephone 10 by connecting a connector 12 to terminal 10a for connector joints of a portable telephone 10. Various kinds of devices, such as a microphone for carrying out the message in handsfree, a loudspeaker, and an one-touch dial carbon button, are connected to this cradle 14, and it will be used as handsfree telephone by setting a portable telephone 10 to this cradle 14 using a portable telephone 10.

[0043] Moreover, various actuation is performed using the input control unit of the wide multistation 60. In addition, it is suitable for a portable telephone 10 not only this configuration but to form the mounted telephone system of dedication.

[0044] Furthermore, although the telephone number of a portable telephone 10 itself was used as the data of user specification in the above-mentioned example, if it is data which can specify a portable telephone 10 and can be outputted, the telephone number others are remembered to be, a serial number, etc. are good anything. Moreover, by inserting a user card etc. in a portable telephone 10, if the user card is the same even if it will exchange portable telephone 10 the very thing, if it enables it to set up the user number of the portable telephone 10, the range which can be accessed by the user number can be determined.

[0045] Moreover, it is also suitable to control a system lock which was mentioned above according to the current position detected by the location detecting element 28. When running the commutation way by such configuration, access of permitting access to specific data etc. can be managed. Moreover, current time can be detected and the lock by said lock control means can also be controlled by the signal from the timer the external information-control section 16 and inside the navigation control section 18, and an external clock according to the detected current time. According to time of day, the data which can be used are controllable by this.

[0046] It connects through a connector 12, and also you may make it a portable telephone 10 and a cradle 14 not mind a connector using infrared ray communication, such as an IrDA method.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the whole equipment configuration concerning an operation gestalt.

[Drawing 2] It is the flow chart which shows actuation of lock control.

[Drawing 3] It is drawing showing the example of an electronic mail reception record book.

[Drawing 4] It is drawing showing the example of an electronic mail reception record book.

[Drawing 5] It is drawing showing the example of an electronic mail reception record book.

[Drawing 6] It is drawing showing the menu of point registration memory operation.

[Drawing 7] It is the mimetic diagram showing management of a list.

[Drawing 8] It is drawing showing the image which actually carried equipment in the car.

[Drawing 9] It is drawing showing the configuration of a portable telephone.

[Description of Notations]

10 A portable telephone, 12 A connector, 14 A cradle, 16 The external information-control section, 18 A navigation control section, 20 A display, 22 A control unit, 24 The external information storage section, 26 A map database, 28 A location detecting element, 30 The number collating section, 32 Memory, 34 Point registration list storage section.

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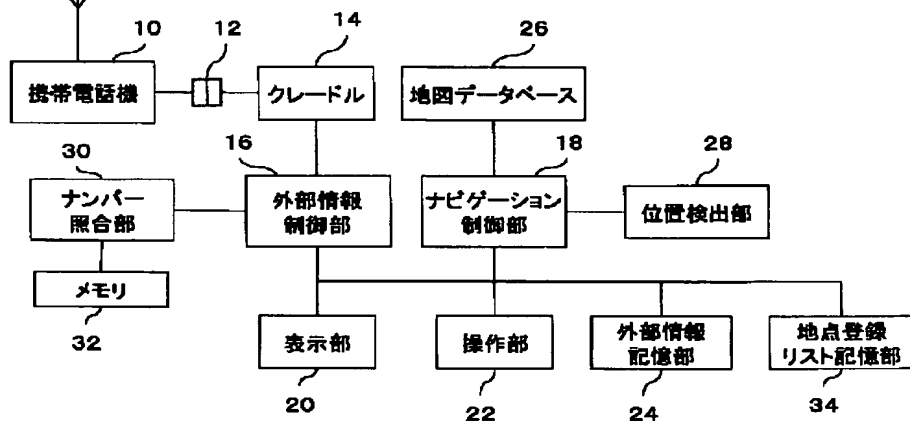
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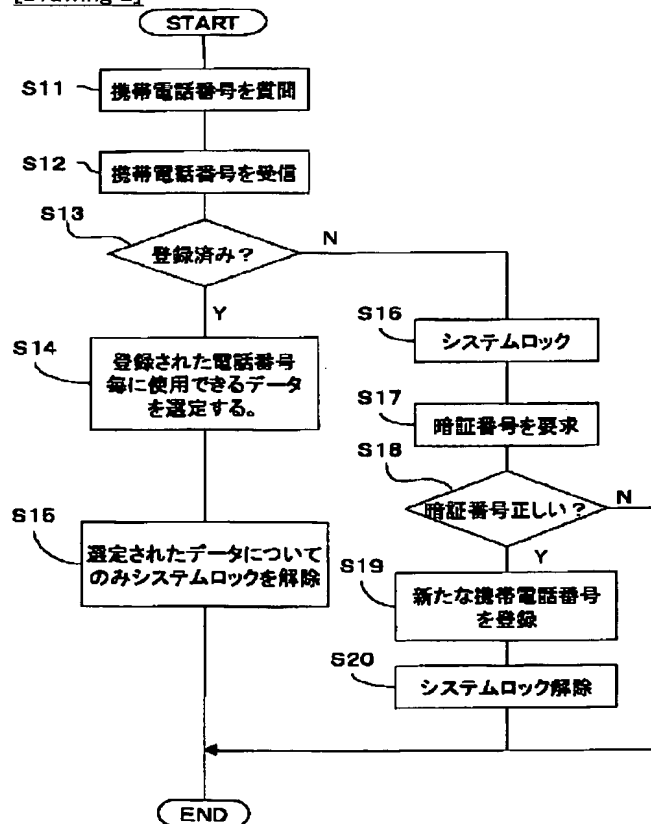
DRAWINGS

[Drawing 1]



実施形態の構成

[Drawing 2]



[Drawing 3]

No.	差し出し人	日付	タイトル
1.	Naomi ◇◇◇	1997.7/10 22:07	Thank you.
2.	Naomi ◇◇◇	1997.7/13 21:50	Re:Thank you.
3.	〇〇 たろべい	1997.7/15 8:19	緊急の出張
4.	Naomi ◇◇◇	1997.7/16 23:00	Re:Thank you.
5.	△△本 ●●当	1997.7/16 23:51	新商品のお知らせ
6.	〇〇 たろべい	1997.7/17 13:09	Re:緊急の出張
7.	Naomi ◇◇◇	1997.7/17 20:46	How about tomorrow?
.			
.			
.			

[Drawing 4]

No.	差し出し人	日付	タイトル
1.	山本 〇〇	1997.5/10 20:00	英語の宿題
2.	山本 〇〇	1997.7/10 21:00	英語の試験勉強
3.	竹本 〇〇	1997.8/3 14:30	△△大学の情報

[Drawing 5]

No.	差し出し人	日付	タイトル
1.	〇〇 隆子	1997.6/8 20:00	料理教室の件
2.	〇〇 英江	1997.8/19 7:38	ダンス教室の件

[Drawing 6]

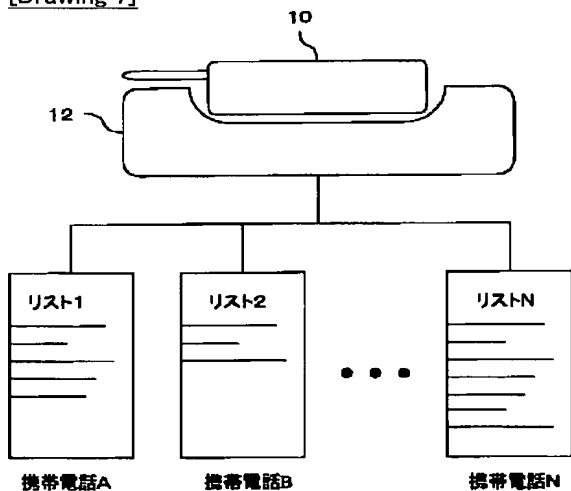
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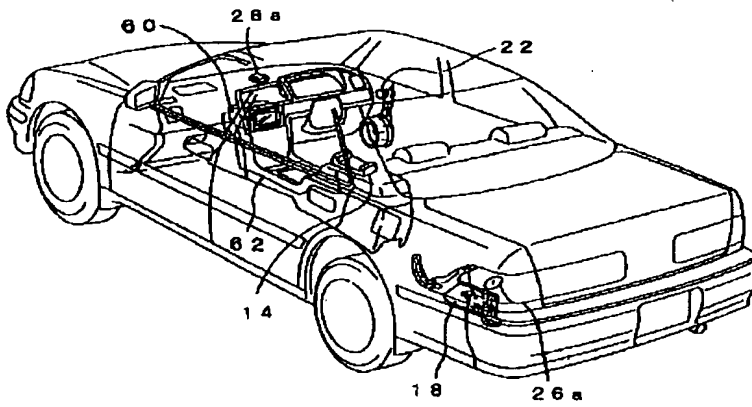
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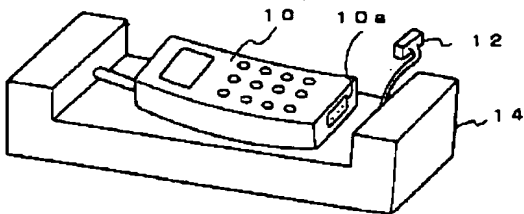
[Drawing 7]



[Drawing 8]



[Drawing 9]



[Translation done.]